UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/851,295	05/08/2001	David P. Greene	I01.009	3131

48175 7590 05/10/2005

BMT/IBM
FIVE ELM STREET
NEW CANAAN, CT 06840

EXAMINER	
CHOI, PETER H	
ART UNIT	**PAPER NUMBER**
3623	

DATE MAILED: 05/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/851,295	GREENE ET AL.	
	Examiner	Art Unit	
	Peter Choi	3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 5/8/01.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-59 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-59 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 5/8/01 is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 5/8/01.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-59 are pending in the application.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description:

- Reference characters 520, 570, and 580 from Figure 4 are not mentioned in the specification. However, the examiner has assumed that these reference characters refer to similar structures found in Figure 3. Reference character 520 has been interpreted to represent a communication bus (like 220 from Figure 3), reference character 570 as RAM (270 from Figure 3) and reference character 580 as ROM (280 from Figure 3), as described in page 10 of the specification.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37

CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-2, 4-5, 8-9, 29-30, 32-33 and 36-37 are rejected under 35 U.S.C. 102(b) as being anticipated by Swartz et al (PGPub 2002/0050526).

As per claim 1, Swartz et al. teaches a method for obtaining customer information, comprising:

detecting interactions of a customer **(bar codes scanned by a customer)** within a retail store; and

storing customer interaction information **(product information on items scanned)** representing the interactions in a portable customer device **(portable terminal)** [Paragraph 60].

As per claim 2, Swartz et al. teaches a method according to claim 1, wherein the storing step comprising:

transmitting **(downloading)** the customer interaction information to the portable customer device **(terminal)** [Claim 35].

As per claim 4, Swartz et al. teaches a method according to claim 1, wherein the customer is issued a portable terminal when he enters a retail store [Paragraph 56].

As per claim 5, Swartz et al. teaches a method according to claim 1, further comprising:

receiving **(storing in a central location)** the customer interaction information from the portable customer device **(terminal)** [Paragraph 60].

As per claim 8, Swartz et al. teaches a method according to claim 1, wherein the customer interaction information includes at least one of customer preferences **(product & shopping categories, news, ingredients, language)**, sales transaction information **(shopping history)**, and customer traffic information [Paragraphs 68-102].

As per claim 9, Swartz et al. teaches a method according to claim 1, wherein the customer may edit **(add or delete items to a list of products)** the stored customer interaction information [Paragraph 36].

As per claim 29, Swartz et al. teaches a medium storing processor-executable process steps to obtain customer information, the process steps comprising:

a step to detect interactions of a customer **(bar codes scanned by a customer)** within a retail store; and

a step to store customer interaction information **(product information on items scanned)** representing the interactions in a portable customer device **(portable terminal)** [Paragraph 60].

As per claim 30, Swartz et al. teaches a medium according to claim 29, wherein the step to store comprises:

a step to transmit **(download)** the customer interaction information to the portable customer device **(terminal)** [Claim 35].

As per claim 32, Swartz et al. teaches a method according to claim 29, wherein the customer is issued a portable terminal when he enters a retail store [Paragraph 56

As per claim 33, Swartz et al. teaches a medium according to claim 29, the process steps further comprising:

a step to receive **(store in a central location)** the customer interaction information from the portable customer device **(terminal)** [Paragraph 60].

As per claim 36, Swartz et al. teaches a medium according to claim 29, wherein the customer interaction information includes at least one of customer preferences **(product & shopping categories, news, ingredients, language)**, sales transaction information **(shopping history)**, and customer traffic information [Paragraphs 68-102].

As per claim 37, Swartz et al. teaches a medium according to claim 29, wherein the customer may edit **(add or delete items to a list of products)** the stored customer interaction information. [Paragraph 36]

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 3,6,7, 10-11, 31, 34-35 38-39, and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swartz et al. (PGPub US2002/0050526)

As per claim 3, Swartz et al. teaches a method according to claim 1, wherein the storing step comprises:

broadcasting **(transmitting)** the customer interaction information **(list of selected articles)** [Claim 15].

As per claim 6, Swartz et al. teaches a method according to claim 1, further comprising:

detecting the portable customer device **(using GPS)** [Claim 10].

While not specifically taught by Swartz et al., it is inherent that the portable customer device must first be detected before detecting customer interactions. Otherwise, there would be no means of associating any customer interactions that occur with a specific customer. The stored information may be used to identify customer attitudes towards products and services offered by the retailer, which may lead to improved offerings (in service, price, and presentation). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Swartz et al. to detect the portable customer device before detecting customer interactions for the reasons discussed above therein.

As per claim 7, Swartz et al. teaches a method according to claim 1, further comprising:

detecting the portable customer device **(using GPS)** [Claim 10].

While not specifically taught by Swartz et al., it is inherent that the portable customer device must first be detected before storing any customer interactions that occur with a specific customer. Otherwise, the information gathered could not be used

to redesign retail space to improve consumer traffic flow, collect demographic information, or result in some other means of improving offerings (in terms of service, price, and presentation) and would be considered a non-useful result. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Swartz et al. to detect the portable customer device before storing customer interactions for the reasons discussed above therein.

As per claim 10, Swartz et al. fails to explicitly teach a method according to claim 1 further comprising:

determining if the customer agrees to have the customer interaction information stored in the portable customer device; and

providing a benefit to the customer if the customer agrees to have the customer interaction information stored in the portable customer device.

However, Official Notice is taken that customers who choose to use store-issued portable customer devices and are aware of the store's intent to gather information about their behavior have communicated their intent to actively participate in such marketing efforts by allowing information (about their interactions in the store) to be stored on the portable customer device issued by the store. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Swartz et al. to determine if the customer has agreed to have interaction information

stored in the portable customer device in order to assuage any fears that customer privacy is being infringed upon.

Official Notice is also taken that the concept of offering customers an incentive in exchange for their participation in gathering marketing research is a practice that is old and well known in the art. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Swartz et al. to include an incentive to increase the participation rate amongst customers, providing a greater amount of data.

As per claim 11, Swartz et al. fails to teach a method according to claim 1, wherein the customer interaction information is input by a store employee.

However, it is old and well known in the art that portable devices feature input devices that allow the user to enter information currently stored in the memory of the device. Since the employee is acting as a representative of the store, it is likely that they are more familiar with the workings of the customer interaction device, so they may be able to perform functions that the device cannot automate. Employees may also need to input information to reflect any interaction they may have had in assisting the customer, or if the customer needs assistance in retrieving an item from a shelf, or if the customer inquires about the availability of an item (in the warehouse, in the back, etc.), or if the customer has injured themselves and requires assistance. Allowing the employee to input customer interaction information helps to ensure that the data being collected is

valid. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Swartz et al. for the reasons discussed above therein.

As per claim 31, Swartz et al. teaches a medium according to claim 29, wherein the step to store comprises:

a step to broadcast **(transmit)** the customer interaction information **(list of selected articles)** [Claim 15].

As per claim 34, Swartz et al. teaches a medium according to claim 29, the process steps further comprising:

a step to detect the portable customer device **(using GPS)** [Claim 10].

While not specifically taught by Swartz et al., it is inherent that the portable customer device must first be detected before detecting customer interactions. Otherwise, there would be no means of associating any customer interactions that occur with a specific customer. The stored information may be used to identify customer attitudes towards products and services offered by the retailer, which may lead to improved offerings (in service, price, and presentation). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Swartz et al. to detect the portable customer device before detecting customer interactions for the reasons discussed above therein.

As per claim 35, Swartz et al. teaches a medium according to claim 29, the process steps further comprising:

a step to detect the portable customer device **(using GPS)** [Claim 10].

While not specifically taught by Swartz et al., it is inherent that the portable customer device must first be detected before storing any customer interactions that occur with a specific customer. Otherwise, the information gathered could not be used to redesign retail space to improve consumer traffic flow, collect demographic information, or result in some other means of improving offerings (in terms of service, price, and presentation) and would be considered a non-useful result. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Swartz et al. to detect the portable customer device before storing customer interactions for the reasons discussed above therein.

As per claim 38, Swartz et al. fails to explicitly teach a medium according to claim 29, the process steps further comprising:

a step to determine if the customer agrees to have the customer interaction information stored in the portable customer device; and

a step to provide a benefit to the customer if the customer agrees to have the customer interaction information stored in the portable customer device.

However, Official Notice is taken that customers who choose to use store-issued portable customer devices and are aware of the store's intent to gather information about their behavior have communicated their intent to actively participate in such marketing efforts by allowing information (about their interactions in the store) to be stored on the portable customer device issued by the store. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Swartz et al. to determine if the customer has agreed to have interaction information stored in the portable customer device in order to assuage any fears that customer privacy is being infringed upon.

Official Notice is also taken that the concept of offering customers an incentive in exchange for their participation in gathering marketing research is a practice that is old and well known in the art. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Swartz et al. to include an incentive to increase the participation rate amongst customers, providing a greater amount of data.

As per claim 39, Swartz et al. fails to teach a method according to claim 1, wherein the customer interaction information is input by a store employee.

However, it is old and well known in the art that portable devices feature input devices that allow the user to enter information currently stored in the memory of the device. Since the employee is acting as a representative of the store, it is likely that they

are more familiar with the workings of the customer interaction device, so they may be able to perform functions that the device cannot automate. Employees may also need to input information to reflect any interaction they may have had in assisting the customer, or if the customer needs assistance in retrieving an item from a shelf, or if the customer inquires about the availability of an item (in the warehouse, in the back, etc.), or if the customer has injured themselves and requires assistance. Allowing the employee to input customer interaction information helps to ensure that the data being collected is valid. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Swartz et al. for the reasons discussed above therein.

As per claim 57, Swartz et al. teaches an apparatus to obtain customer information, comprising:

means to:

detect interactions of a customer **(bar codes scanned by a customer)** within a retail store; and

store customer interaction information **(product information on items scanned)** representing the interactions in a portable customer device **(portable terminal)** [Paragraph 60].

While Swartz et al. did not explicitly teach an apparatus with a processor or storage device, it is inherent that portable electronic devices capable of storing

information contains both of these essential components; thus, the portable terminal taught by Swartz et al. meets this limitation of the claim.

7. Claims 12-14, 40-42, 48-50 and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swartz et al. in view of Washington Mutual.

As per claim 12, Swartz et al. teaches a method for obtaining customer information, comprising:

storing **(in memory)** customer interaction information **(a product list of items scanned)** representing the interactions in a portable customer device **(portable terminal - PDA)** [Paragraph 60].

Swartz et al. does not teach the step of detecting customer interactions with an employee. However, Washington Mutual has adopted "Occasio", a banking strategy where bankers will circulate among customers and will be equipped with hand-held electronic devices to take care of customer needs on the spot. As representatives of the store and company, employees are "experts" and provide guidance in navigating the store, and answer customer questions regarding store layout, item availability and product selection. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Swartz et al. to include a step to detect customer interactions with employees for the reasons discussed above therein.

As per claim 13, Swartz et al. teaches a method according to claim 12, wherein the storing step comprising:

transmitting **(downloading)** the customer interaction information to the portable customer device **(terminal)** [Paragraph 35].

As per claim 14, Swartz et al. fails to teach a method according to claim 12, wherein the storing step comprises:

broadcasting **(transmitting)** the customer interaction information **(list of selected articles)** [Claim 15].

As per claim 40, Swartz et al. teaches a medium storing processor-executable process steps to obtain customer information, the process steps comprising:

storing **(in memory)** customer interaction information **(a product list of items scanned)** representing the interactions in a portable customer device **(portable terminal - PDA)** [Paragraph 60].

Swartz et al. does not teach the step of detecting customer interactions with an employee. However, Washington Mutual has adopted "Occasio", a banking strategy where bankers will circulate among customers and will be equipped with hand-held electronic devices to take care of customer needs on the spot. As representatives of the store and company, employees are "experts" and provide guidance in navigating the

store, and answer customer questions regarding store layout, item availability and product selection. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Swartz et al. to include a step to detect customer interactions with employees for the reasons discussed above therein.

As per claim 41, Swartz et al. teaches a medium according to claim 40, wherein the step to store comprises:

a step to transmit **(download)** the customer interaction information to the portable customer device **(terminal)** [Claim 35].

As per claim 42, Swartz et al. fails to teach a medium according to claim 40, wherein the step to store comprises:

a step to broadcast **(transmit)** the customer interaction information **(list of selected articles)** [Claim 15].

As per claim 48, Swartz et al. teaches a medium according to claim 40, wherein the customer interaction information includes at least one of customer preferences **(product & shopping categories, news, ingredients, language)**, sales transaction information **(shopping history)**, and customer traffic information [Paragraphs 68-102].

As per claim 49, Swartz et al. teaches a medium according to claim 40, wherein the customer may edit **(add or delete items to a list of products)** the stored customer interaction information [Paragraph 36].

As per claim 50, Swartz et al. fails to teach a medium according to claim 40, the process steps further comprising:

a step to determine if the customer agrees to have the customer interaction information stored in the portable customer device; and

a step to provide a benefit to the customer if the customer agrees to have the customer interaction information stored in the portable customer device.

However, Official Notice is taken that customers who choose to use store-issued portable customer devices and are aware of the store's intent to gather information about their behavior have communicated their intent to actively participate in such marketing efforts by allowing information (about their interactions in the store) to be stored on the portable customer device issued by the store. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Swartz et al. to determine if the customer has agreed to have interaction information stored in the portable customer device in order to assuage any fears that customer privacy is being infringed upon.

Official Notice is also taken that the concept of offering customers an incentive in exchange for their participation in gathering marketing research is a practice that is old and well known in the art. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Swartz et al. to include an incentive to increase the participation rate amongst customers, providing a greater amount of data.

As per claim 58, Swartz et al. teaches an apparatus to obtain customer information, comprising:

means to:

store customer interaction information **(product information on items scanned)** representing the interactions in a portable customer device **(portable terminal)** [Paragraph 60].

Swartz et al. does not teach an apparatus used to detect customer interactions with an employee. However, Washington Mutual's "Occasio" program makes use of hand-held electronic devices to help customers. As representatives of the store and company, employees are "experts" and provide guidance in navigating the store, and answer customer questions regarding store layout, item availability and product selection. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Swartz et al. to include a step to detect customer interactions with employees for the reasons discussed above therein.

While the combined teachings of Swartz et al. and Washington Mutual did not explicitly teach an apparatus with a processor or storage device, it is inherent that the portable terminal taught by Swartz et al. contains both of these essential components and meets this limitation of the claim.

8. Claims 15-22 and 43-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swartz et al. and Washington Mutual as applied to claim 12 above, and further in view of Anandan et al. (PGPub US2002/0062251).

As per claim 15, Swartz et al. fails to teach a method according to claim 12, further comprising:

detecting the customer within a retail store.

However, Anandan et al. teaches a system for tracking consumer movements within retail locations using location-tracking technology and portable electronic communication devices [Paragraphs 26-27]. It would have been obvious to one of ordinary skill in the art at the time of rejection to combine the teachings of Swartz et al. and Anandan et al. because the ability to track and detect the customer within a retail store can provide valuable traffic flow information that can be used to redesign retail space to improve consumer traffic flow, which may lead to higher patronage, retention rates and sales.

As per claim 16, Swartz et al. teaches a method according to claim 15, further comprising:

receiving **(storing in a central location)** the customer interaction information from the portable customer device **(terminal)** [Paragraph 60].

As per claim 17, Swartz et al. teaches a method according to claim 16, further comprising:

querying **(retrieving data from)** the portable customer device for customer interaction information [Paragraphs 39,45-49].

As per claim 18, Swartz et al. fails to teach a method according to claim 17, wherein the querying step comprises:

transmitting **(communicates with a central host)** a query **(for data)** to the portable customer device [Paragraphs 39,45-49].

As per claim 19, Swartz et al. fails to teach a method according to claim 17, wherein the querying step comprises:

broadcasting **(communicating with a central host)** a query **(for data)** [Paragraphs 39,45-49].

As per claim 20, Swartz et al. teaches a method according to claim 12, wherein the customer interaction information includes at least one of customer preferences

(product & shopping categories, news, ingredients, language), sales transaction information **(shopping history)**, and customer traffic information [Paragraphs 68-102].

As per claim 21, Swartz et al. teaches a method according to claim 12, wherein the customer may edit **(add or delete items to a list of products)** the stored customer interaction information. [Paragraph 36]

As per claim 22, Swartz et al. fails to explicitly teach a method according to claim 12, further comprising:

determining if the customer agrees to have the customer interaction information stored in the portable customer device; and

providing a benefit to the customer if the customer agrees to have the customer interaction information stored in the portable customer device.

However, Official Notice is taken that customers who choose to use store-issued portable customer devices and are aware of the store's intent to gather information about their behavior have communicated their intent to actively participate in such marketing efforts by allowing information (about their interactions in the store) to be stored on the portable customer device issued by the store. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Swartz et al. to determine if the customer has agreed to have interaction information

stored in the portable customer device in order to assuage any fears that customer privacy is being infringed upon.

Official Notice is also taken that the concept of offering customers an incentive in exchange for their participation in gathering marketing research is a practice that is old and well known in the art. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Swartz et al. to include an incentive to increase the participation rate amongst customers, providing a greater amount of data.

As per claim 43, Swartz et al. fails to teach a method according to claim 40, further comprising:

a step to detect the customer within a retail store.

However, Anandan et al. teaches a system for tracking consumer movements within retail locations using location-tracking technology and portable electronic communication devices [Paragraphs 26-27]. It would have been obvious to one of ordinary skill in the art at the time of rejection to combine the teachings of Swartz et al. and Anandan et al. because the ability to track and detect the customer within a retail store can provide valuable traffic flow information that can be used to redesign retail space to improve consumer traffic flow, which may lead to higher patronage, retention rates and sales.

As per claim 44, Swartz et al. teaches a medium, according to claim 43, the process steps further comprising:

a step to receive **(store in a central location)** the customer interaction information from the portable customer device **(terminal)** [Paragraph 60].

As per claim 45, Swartz et al. teaches a medium according to claim 44, the process steps further comprising:

a step to query **(retrieving data from)** the portable customer device for customer interaction information [Paragraphs 39,45-49].

As per claim 46, Swartz et al. fails to teach a medium according to claim 45, wherein the step to query comprises:

a step to transmit **(communicate with a central host)** a query **(for data)** to the portable customer device [Paragraphs 39,45-49].

As per claim 47, Swartz et al. fails to teach a medium according to claim 17, wherein the querying step comprises:

a step to broadcast **(communicate with a central host)** a query **(for data)** [Paragraphs 39,45-49].

9. Claims 23-28, 51-56 and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swartz et al. in view of Anandan et al.

As per claim 23, Swartz et al. teaches a method for obtaining customer information, comprising:

receiving **(storing in a central location)** the customer interaction information from the portable customer device **(terminal)** [Paragraph 60].

Swartz et al. fails to teach a method for detecting a customer within a retail store. However, Anandan et al. teaches a system for tracking consumer movements within retail locations using location-tracking technology and portable electronic communication devices [Paragraphs 26-27]. It would have been obvious to one of ordinary skill in the art at the time of rejection to combine the teachings of Swartz et al. and Anandan et al. because the ability to track and detect the customer within a retail store can provide valuable traffic flow information that can be used to redesign retail space to improve consumer traffic flow, which may lead to higher patronage, retention rates and sales.

As per claim 24, Swartz et al. teaches a method according to claim 23, further comprising:

querying **(retrieving data from)** the portable customer device for customer interaction information [Paragraphs 39,45-49].

As per claim 25, Swartz et al. fails to teach a method according to claim 24, wherein the querying step comprises:

transmitting **(communicates with a central host)** a query **(for data)** to the portable customer device [Paragraphs 39,45-49].

As per claim 26, Swartz et al. fails to teach a method according to claim 24, wherein the querying step comprises:

broadcasting **(communicating with a central host)** a query **(for data)** [Paragraphs 39,45-49].

As per claim 27, Swartz et al. fails to explicitly teach a method according to claim 23, wherein the receiving step further comprises:

receiving a transmission from the portable customer device.

However, Swartz et al. teaches the use of wireless LAN networks and a wireless radio to allow the portable terminal to communicate with a central host. It is old and well known in the art that wireless LAN networking technology can be used to connect network servers, and to receive and send data transmissions, thereby meeting the limitations of the claim.

As per claim 28, Swartz et al. teaches a method according to claim 27, wherein the transmission is a wireless transmission **(over a wireless wide area communication network)** [Claim 42].

As per claim 51, Swartz et al. teaches a medium storing processor-executable process steps, the process steps comprising:

a step to receive **(store in a central location)** customer interaction information associated with the customer from a portable customer device **(terminal)** [Paragraph 60].

Swartz et al. fails to teach a medium for detecting a customer within a retail store. However, Anandan et al. teaches a system for tracking consumer movements within retail locations using location-tracking technology and portable electronic communication devices [Paragraphs 26-27]. It would have been obvious to one of ordinary skill in the art at the time of rejection to combine the teachings of Swartz et al. and Anandan et al. because the ability to track and detect the customer within a retail store can provide valuable traffic flow information that can be used to redesign retail space to improve consumer traffic flow, which may lead to higher patronage, retention rates and sales.

As per claim 52, Swartz et al. teaches a medium according to claim 51, the process steps further comprising:

a step to query **(retrieve data from)** the portable customer device for customer interaction information [Paragraphs 39,45-49].

As per claim 53, Swartz et al. teaches a medium according to claim 52, wherein the step to query comprises:

a step to transmit **(communicate with a central host)** a query **(for data)** to the portable customer device [Paragraphs 39,45-49].

As per claim 54, Swartz et al. fails to teach a medium according to claim 52, wherein the step to query step comprises:

a step to broadcast **(communicate with a central host)** a query **(for data)** [Paragraphs 39,45-49].

As per claim 55, Swartz et al. fails to explicitly teach a method according to claim 51, wherein the receiving step further comprises:

a step to receive a transmission from the portable customer device.

However, Swartz et al. teaches the use of wireless LAN networks to allow the portable terminal to communicate with a central host. It is old and well known in the art that wireless LAN networking technology can be used to connect network servers, and to receive and send data transmissions, thereby meeting the limitations of the claim.

As per claim 56, Swartz et al. teaches a medium according to claim 55, wherein the transmission is a wireless transmission **(over a wireless wide area communication network)** [Claim 42].

As per claim 59, Swartz et al. teaches an apparatus, comprising:

means to:

receive **(storing in a central location)** the customer interaction information from the portable customer device **(terminal)** [Paragraph 60].

Swartz et al. fails to teach a method for detecting a customer within a retail store. However, Anandan et al. teaches a system for tracking consumer movements within retail locations using location-tracking technology and portable electronic communication devices [Paragraphs 26-27]. It would have been obvious to one of ordinary skill in the art at the time of rejection to combine the teachings of Swartz et al. and Anandan et al. because the ability to track and detect the customer within a retail store can provide valuable traffic flow information that can be used to redesign retail space to improve consumer traffic flow, which may lead to higher patronage, retention rates and sales.

While Swartz et al. did not explicitly teach an apparatus with a processor or storage device, the portable devices taught by Swartz et al. inherently contains both of these essential components and thereby meets the limitation of the claim.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lamming et al. (U.S Patent #5,539,665) teaches a method for the recording and retrieval of information relevant to the activities of a user. Data is collected from sensors to provide time-stamped logs of sequential behavior patterns and stored in databases.

McGregor et al. (U.S Patent #5,250,941) teaches a system of monitoring customer activity using sensor assemblies. Data can be accessed by a personal computer over a cable or telephone line. The sensor assembly includes clock means (in the form of a clock and calendar combination) to provide the time of events. The sensor itself is responsive to the presence of an entity for generating a signal.

Makipaa et al. (U.S Patent #6,394,341) teaches a system and method for collecting financial transaction data. The user is provided a user device with communication capability and the memory for storing electronic receipts and other information. The user device may be a smart card, a mobile terminal (including a

wireless, telephone or short range wireless communication link – such as a Bluetooth device, a PDA, etc) and includes a processor and associated memory and communication capability.

Marshall et al. (PGPub US2003/0133418) teaches a wireless system for broadcasting, receiving, storing and selectively printing coupons and the like in a retail environment.

Roslak (US Patent 5,979,753) teaches a device and method for secure data updates in a self-checkout system. Customers are provided with a portable data collecting terminal.

Kikinis (US Patent 6,560,214) teaches a system for wireless communication that comprises an architecture of routers connected to a network and having connected transceivers for wireless transmission and reception of data and a plurality of hand-held communicators adapted for users to communicate with the network through the routers.

Godsey et al. (PGPub US2002/0161651) teaches a system and method for tracking consumers in a store environment. The path traveled by the customer is detected by a series of RFID transmitters located throughout the store and the system receives wireless transmission from a plurality of sensors and devices to track and monitor customer interactions.

Hammond et al. (PGPub US2002/0133418) teaches a transaction system and method where a portable customer device is associated with a customer. The customer device is used to retrieve order information and transmit product selections and orders with the store.

Lorek's "Florida Based Sensormatic Prepares to Launch 60 New Products" discloses that Sensormatic Electronic Corporation (who is best known for making anti-theft tags and machines) is using RFID technology to develop an interactive kiosk to allow users to purchase items and deactivate the anti-theft devices.

Allerton's "Electronic Marketing Tools Growing Fast" discloses that grocery stores are using a variety of electronic devices, including calculators on shopping carts, electronic billboards, instant coupon-dispensers, video monitors, and interactive video devices on the cart.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Choi whose telephone number is (571) 272 6971. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PC
April 21, 2005

TARIQ R. HAFIZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600

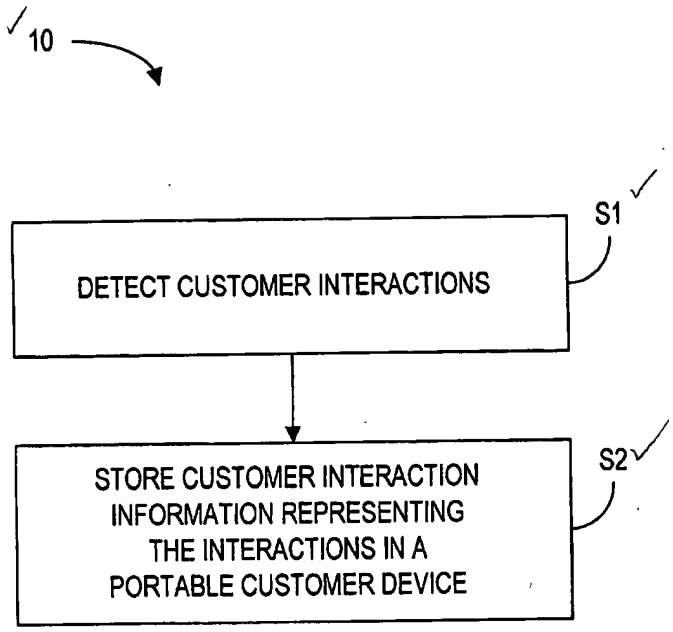

10
S1
DETECT CUSTOMER INTERACTIONS
S2
STORE CUSTOMER INTERACTION INFORMATION REPRESENTING THE INTERACTIONS IN A PORTABLE CUSTOMER DEVICE

FIG. 1

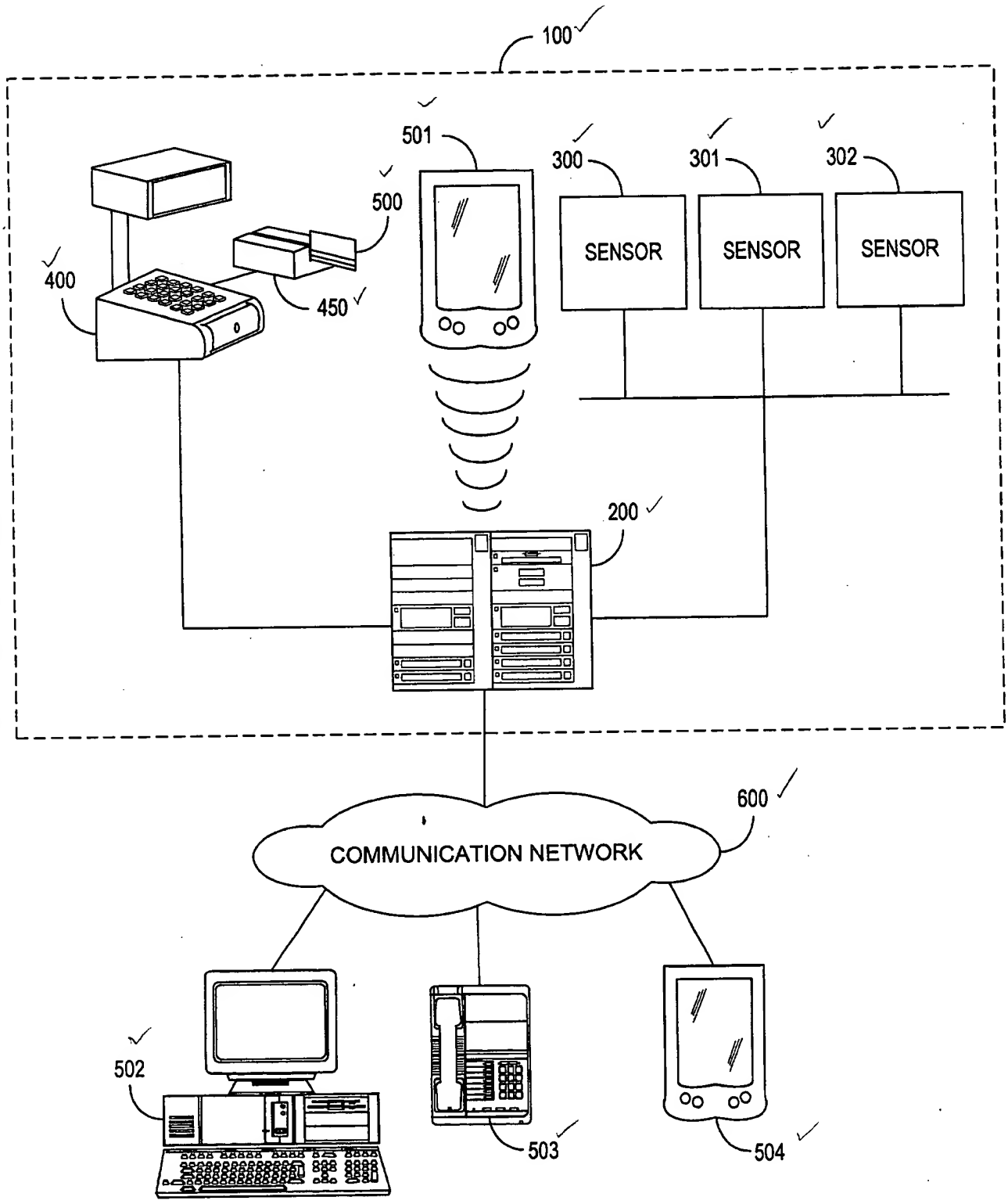

100
501
300
301
302
500
SENSOR
SENSOR
SENSOR
400
450
200
600
COMMUNICATION NETWORK
502
503
504

FIG. 2

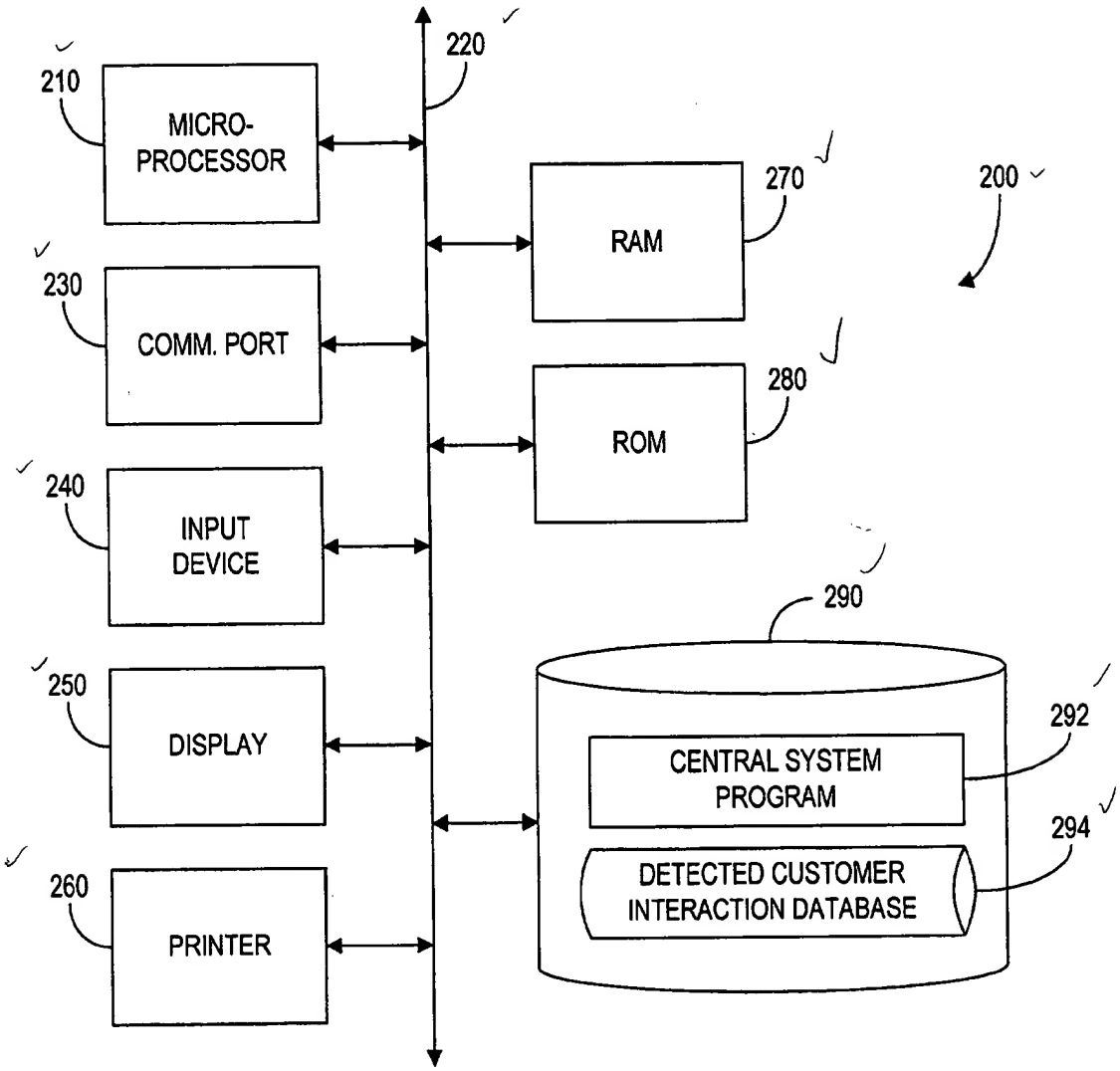
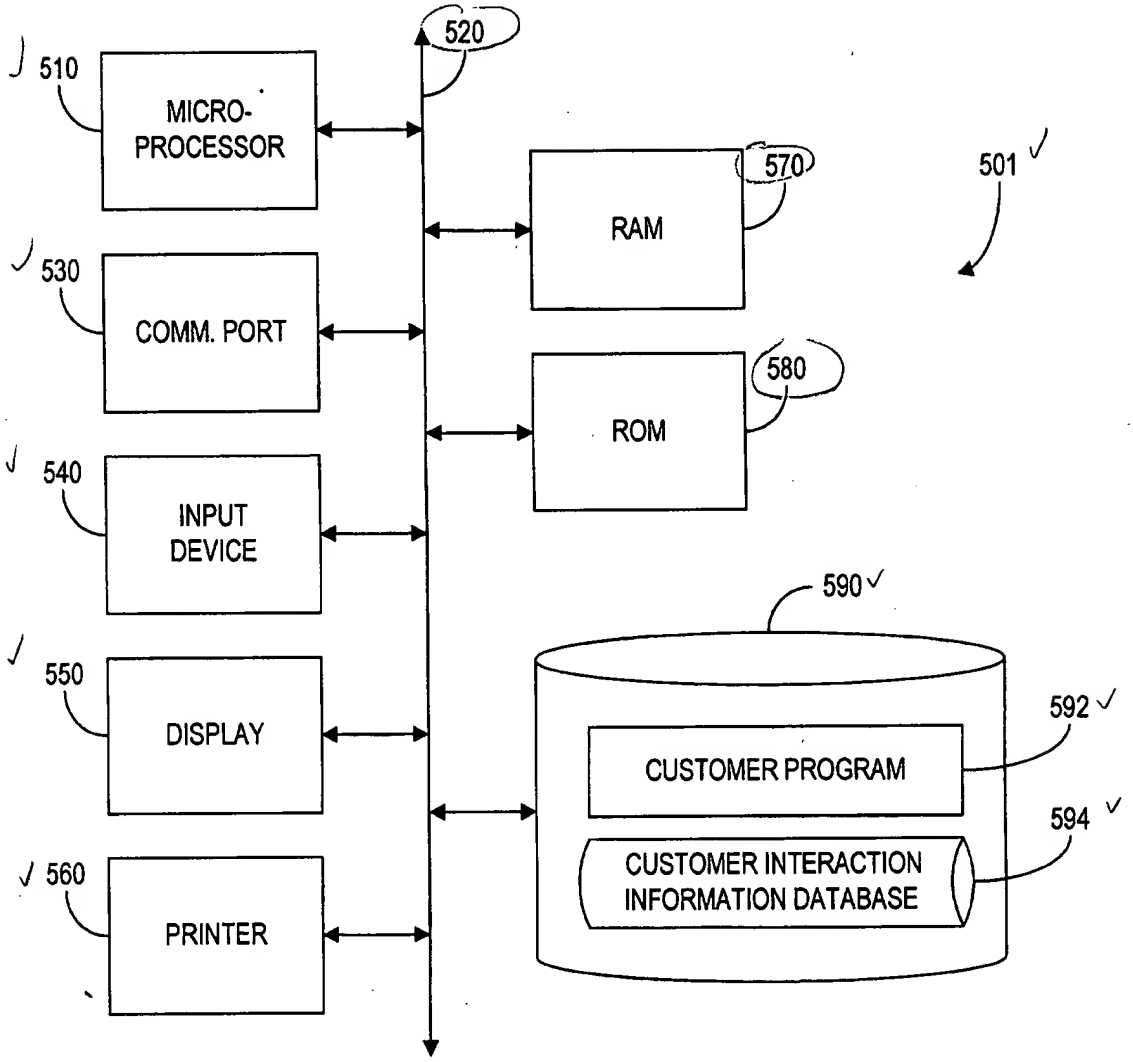

220
210
MICRO-
PROCESSOR
270
200
RAM
230
COMM. PORT
280
ROM
240
INPUT
DEVICE
290
250
DISPLAY
292
CENTRAL SYSTEM
PROGRAM
294
DETECTED CUSTOMER
INTERACTION DATABASE
260
PRINTER

FIG. 3



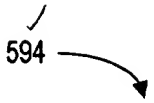
520 - communication bus
570 - RAM
580 - ROM
} pg 10

FIG. 4

294

CUSTOMER ID 295	AISLE / TIME SPENT 296	PRODUCT SELECTED 297	PRODUCT PURCHASED 298
3	A / 1.1 MIN. B / 5.7 MIN. C / 0.5 MIN.	UPC 0111010011 UPC 0101010111 UPC 0000011111	UPC 010110101001 UPC 0001110001 UPC 0101010101 UPC 0101010101
5	B / 8.1 MIN.	UPC 0000011111	UPC 0101011111
6	B / 6.0 MIN. C / 1.5 MIN.	UPC 0000011111	UPC 0101011111 UPC 0101010101

FIG. 5



STORE ID 595	DATE / TIME OF INTERACTION 596	AISLE / TIME SPENT 597	PRODUCT SELECTED 598	PRODUCT PURCHASED 599
6A11	1/2/00 12:00 PM	B / 6.0 MIN. C / 5.0 MIN.	UPC 0000011111	UPC 0101011111 UPC 0101010101
38QP	1/3/00 10:15 AM	1 / 1.0 MIN 2 / 4.2 MIN	NONE	NONE
DD36	1/3/00 1:15 PM	N/A	UPC 0110110110	NONE
6A11	1/7/00 1:45 PM	C / 2 MIN.	NONE	UPC 0000011111

FIG. 6

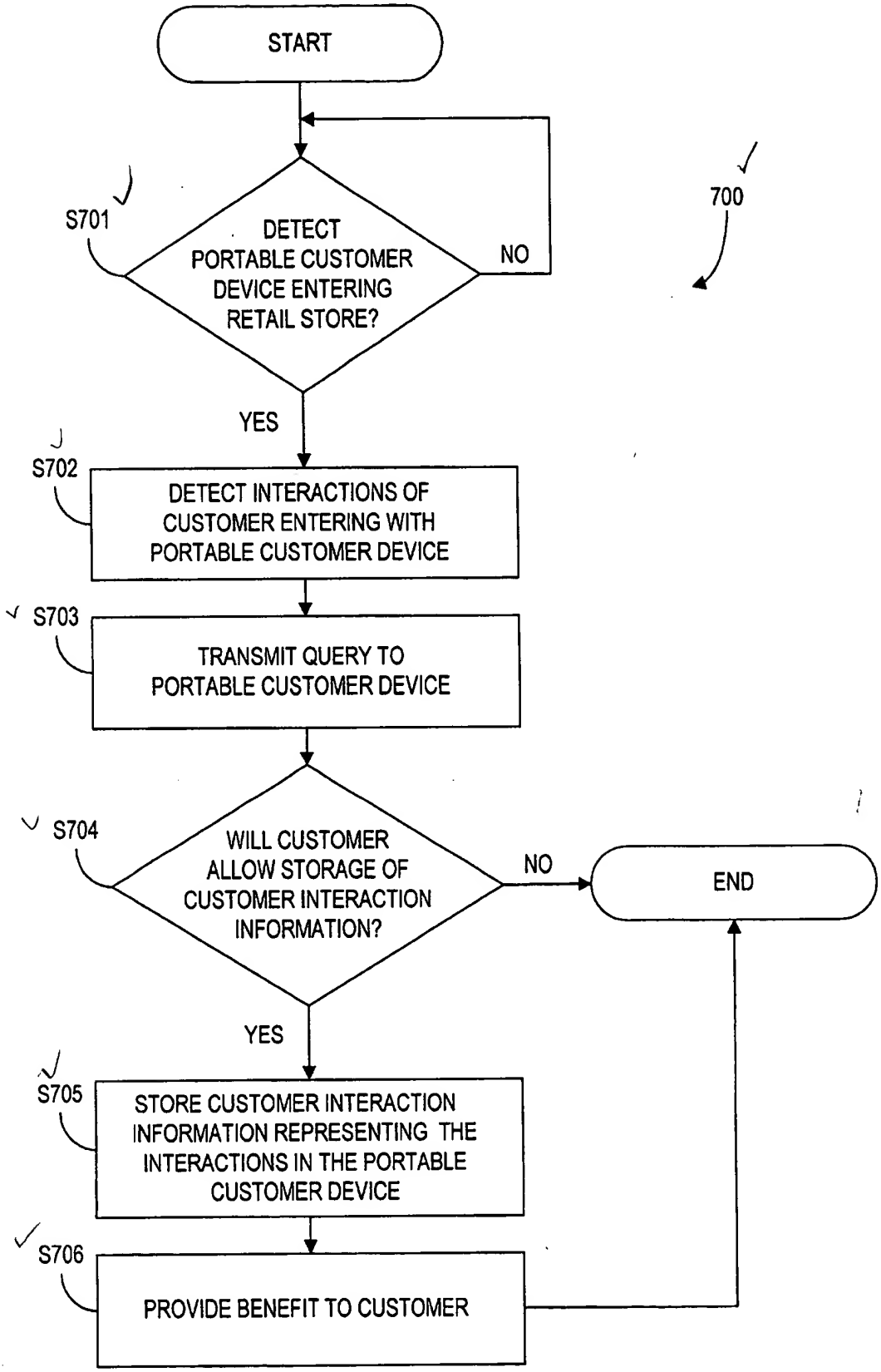

START
S701
DETECT PORTABLE CUSTOMER DEVICE ENTERING RETAIL STORE?
NO
YES
700
S702
DETECT INTERACTIONS OF CUSTOMER ENTERING WITH PORTABLE CUSTOMER DEVICE
S703
TRANSMIT QUERY TO PORTABLE CUSTOMER DEVICE
S704
WILL CUSTOMER ALLOW STORAGE OF CUSTOMER INTERACTION INFORMATION?
NO
END
YES
S705
STORE CUSTOMER INTERACTION INFORMATION REPRESENTING THE INTERACTIONS IN THE PORTABLE CUSTOMER DEVICE
S706
PROVIDE BENEFIT TO CUSTOMER

FIG. 7

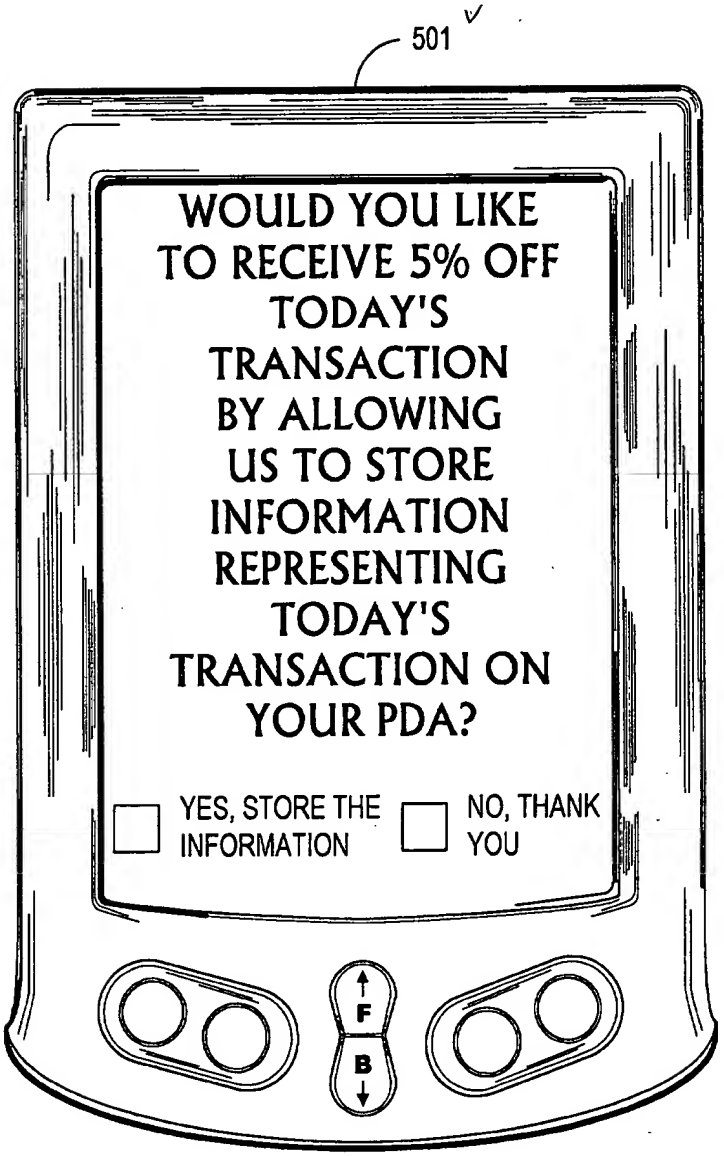

501
WOULD YOU LIKE TO RECEIVE 5% OFF TODAY'S TRANSACTION BY ALLOWING US TO STORE INFORMATION REPRESENTING TODAY'S TRANSACTION ON YOUR PDA?
YES, STORE THE INFORMATION
NO, THANK YOU
F
B

FIG. 8